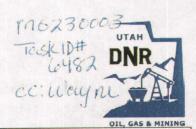
Application for Bond Release



Operator/Permittee: Materion Natural Resources Permit ID#: M/023/0003 Mine/Project Name: Topaz Mine/Monitor Phase 1 LMUs 2 & 3 Permitted Acres: 250.3 disturbed APPRAVED Reason for Bond Release: FEB 25 2015 Work was completed in compliance with approved plan. **DIV. OIL GAS & MINING** Amount of Existing Surety: \$2,592,000 Amount of Surety requested for release: \$23,602 Partial Release of entire mine site: Partial Release of a *portion** of the mine site: (Backfilling and grading are completed) Acres Regraded: 44.4 Acres: Specify Area: Monitor Phase 1 LMUs 2 & 3 dump sites (see attached map) Full Release of entire mine site: Full Release of a portion* of the mine site: (Vegetation is established and has survived three growing seasons.) Acres to be released: Acres to be released: Specify Area:

*For a bond release on a portion of the mine site, submit an updated map removing the released area from the disturbed or bonded area.



Application for Bond Release
Reclamation practices must be completed in accordance with R647-2-109, or R647-3-109, or R647-4-111 as applicable.

Have any shafts and tunnels been permanently sealed?	Yes No
N/A	
Disposal of debris & other materials incident to mining	Yes No
The area is clean, work completed Fall, 2013.	
Public safety notifications such as posted signs or fences/barriers above highwalls	Yes No
Drainages, reestablished & stable	Yes No
N/A	
Structures demolished and deleterious materials disposed of N/A	Yes No
Erosion Controlled	Yes No
Durable material, minimal gradient on surface & ~12% gradient on rounded perimeter.	
Slopes, waste piles, fills regraded Dump surface regraded & rounded: outslope varianced from regrading in approved plan.	Yes No
Highwalls stabilized to an angle of 45° or less	Yes No
Meets Postmining Land Use (Indicate Land use)	Yes No
Land use is wildlife habitat and livestock grazing.	
Roads and/or pads have been reclaimed	Yes No
Dams, Impoundments, Ditches, Pits reclaimed N/A	Yes No
Topsoil redistributed – amendments added	Yes No
Topsoil 3 to 6 inches deep on surface. No amendments added.	
Vegetation meets 70% of the pre-mining cover? See approved plan (December 2013), Section 7.13 for site standards. Note: For Final Bond Release vegetation must meets 70% of premining cover and has survived three year growing season to maintain small mine status.	Yes No No vears for or has survived one
Plugging of boreholes	Yes No
If Answer is Yes, please fill out page 3 of this form DESCRIPTION of RECLAMATION ACTIVITIES COMPLETED (Describe any variance(s) that have been granted, date activity completed) Dump top was contoured, rounded and topsoil distributed in 2013. Dump top we dimpled and seed mix applied late fall, 2013 & 2014, see attached Memorandu	vas lightly ripped, um for details.

APPROVED

FEB 25 2015

Application for Bond Release



	Plugging m R647-3-108,	ust be comple R647-4-108, a	eted as appl and R649-3-	icable in ac 24 (for case	cordan d wells	ce with R64).	7-2-108,
Final Borehole	Coordinates m in either UTM NAD	nay be reported Zone 12 or 11 83 or Longitude	Date Drilled	Date Plugged	Water	Date Regraded	Date Seeded
ID	Northing	Easting	(mm/dd/yy)	(mm/dd/yy)	Y/N	(mm/dd/yy)	(mm/dd/yy)
	REPRESENTATION OF THE PROPERTY				2 0 7		
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						DIV. OIL G	AS & MININ(

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments and obligations, herein.

Porter W. Gregory III	The Wilyay If
Print Name	Sign Name, Position
(435)864-2701	1-30-15
Phone No.	Date
Return to:	
Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210 Box 145801	FOR DOGM USE ONLY: File #: M/ / Approved: Pond Adjustment: from (\$)

Salt Lake City, Utah 84114-5801 Phone: (801) 538-5291



Materion Natural Resources P.O Box 815 Delta, Utah 84624

Tel: 435-864-2701 Fax: 435-864-4004

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25 2015

DIV. CIL COLO & MINING

January 22, 2015

State of Utah Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, Utah 84114-5801 Attention: Mr. Paul Baker

Re: Partial Release from Prescribed Earthwork of the Monitor Phase 1 LMUs 2 & 3 Dump

Dear Paul:

Please find attached to this letter, form MR-SITE requesting the partial release from prescribed reclamation treatments conducted on 25.1 acres, specifically earthwork. The remaining 19.3 acres of the total 44.4 acres listed in table 9.1-1 consist of the dump outslope, which has no earthwork requirements. This accounts for all dump acres on the Monitor Phase 1 LMU 2 & 3 projects. Pursuant to Mr. Wayne Western's suggestion stated in his minerals inspection report dated 07/02/2014, the following documentation is enclosed.

- 1. Form MR-Site/Bond Release
- 2. Memorandum Monitor Phase 1 Reclamation
- 3. Photos of reclamation work
- 4. Map displaying area requested for partial release
- Weather Trend Chart
- 6. Plate 12
- 7. MRP Table 9.1-1
- 8. MRP Appendix 6 Bonding Calculation Sheets
- 9. MRP Appendix 6 Total Bonding Costs
- 10. Copy of Mineral Inspection Report dated 07/02/2014

All reclamation work was completed in accordance with the previously approved Mining and Reclamation Plan (December 2006 – updated 2013). No bond release money is being requested at this time. Instead, we prefer to have a credit granted until the next bond recalculation in 2018. The area requested for release is located in the west ½ of Section 7 in T13S, R12W, SLM.

Please let me know if you require additional information in order to grant the requested release.

Sincerely,

John Wagner

Mine Manager, Materion Natural Resources

L:\Reclamation\MonitorP1\MNP114\Cover Letter_MNP1 Earth.docx

FEB 25 2015

DIV. OIL GAS & MINING



Natural Resources MEMORANDUM

Date:

01/22/2015

TO:

Wayne Western

FROM:

Robert Dalton

SUBJECT:

Topaz Mine - Monitor Phase I Reclamation

The following notes outline the work done to reclaim the Monitor Phase 1, dump top surface. Relevant information is taken from the previously approved Mining Reclamation Plan (December 2006 – updated 2013). Please see the Plan section references as needed during the review of this document. Plates 9A, 9B and 9C from the plan are a good visual reference. Also, note that all three Monitor LMUs were opened simultaneously due to economic considerations (see MRP 5.9). However, LMU dump #1 was not constructed due to a smaller pit configuration and resultant lesser disturbance area.

Work completed consisted of:

Topsoil sampling, mapping, and stockpiling.

- a. Topsoil recovery was based on field observations and analytical results. (see MRP 7.7)
- b. The "new" topsoil was stockpiled in proximity to the dump site locations. (see attached Monitor Reclamation map). A total of 26,320 cubic yards was available for redistribution on the dump top surface area. This compares with the project demand for topsoil of 15,831 cubic yards for the Monitor Phase I LMUs (MRP Table 7.10-1).

2. Dump top contouring with rock piles intended for wildlife habitat.

- a. The surface of the dump top was contoured with a dozer and excavator and the larger rocks were arranged in random piles in order to provide wildlife habitat.
- b. The dump area was estimated at 25.1 acres in the plan (see MRP Table 7.10-1). The as-built dump top area encompasses 25.1 acres of which 25.1 dump top acres were reclaimed.

Dump top perimeter rounded.

- a. The rounding is a standard reclamation treatment intended to blend the dump crest to the surrounding terrain and reduce erosion (see MRP section 7.4.2).
- b. The Plan estimated 9,520 cubic yards which equates to 6,188 linear feet of rounding for the two Monitor LMU dump tops (see Appendix 8 of the MRP). The previously scheduled future backfill area has been rounded for a total of 6,870 linear feet of dump top perimeter rounding. The entire dump top perimeter rounding for the Monitor Phase 1 dump is complete.

4. Distribute available topsoil on the dump top surface.

a. The "new" topsoil stockpile contained 26,320 cubic yards. This is forty percent less topsoil than was estimated in the plan (see Table 5.6-1 of the MRP).

THATHAMA

b. The demand thickness was three inches, where the actual average distribution thickness was over four inches. There were 22,300 yards spread over the dump top surfaces and rounded crests. Approximately 4,020 yards of topsoil was stockpiled for future use.

5. Dump top amendments.

- Topsoil analysis indicates that salinity is not a problem. Therefore, an application of gypsum is not needed.
- b. Use of chemical fertilizers (e.g. Mono-ammonium Phosphate) may attract invasive plant species (e.g. cheat grass) and was therefore not used.

6. Apply reclamation seed mix.

- a. The seed mix approved in the plan (see Table 7.11-1 of the MRP) was applied in late fall (see MRP 7.11) using a four wheeled vehicle and calibrated seed broadcaster. Weather conditions during the application varied, but were generally favorable. Broadcasting was put on hold during heavy winds.
- b. Seed was ordered well in advance to insure availability. The as-built treated area required 265.0 pounds of seed mix to comply with the plan. Additional seed was added to the order to insure good coverage and germination on the treated surfaces.
- c. Limited seed was applied to the dump outslope.

7. Deep ripping of the dump top not necessary.

- a. The "plug dumping" and dozer spreading construction method provided a loose surface that is deeper than the eighteen inch rip depth specified in the plan (see MRP 7.8).
- b. A "shallow rip" or scarifying of approximately six inches or more was done in the areas covered with topsoil. This mixed the topsoil and is expected to improve the overall seedbed.

8. Dimple the dump top and topsoil storage areas with the sheepsfoot implement.

a. The sheepsfoot is a standard treatment intended to press the seed into the soil and create depressions to collect water and provide shelter for seedlings (see 7.6.3).

The work on numbers 5-8 above was completed during the fall in compliance with the plan (see 7.11 of the MRP). The seed mix application was done in second half of November. The seed broadcast was timed simultaneously to take advantage of the late fall moisture. The plant species in the seed mix should have an adequate dormancy and freezing period for germination.

All considerations and tasks are in compliance with the plan. Therefore, the Division of Oil, Gas and Mining did not need advance notification.

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FEB 25 2015

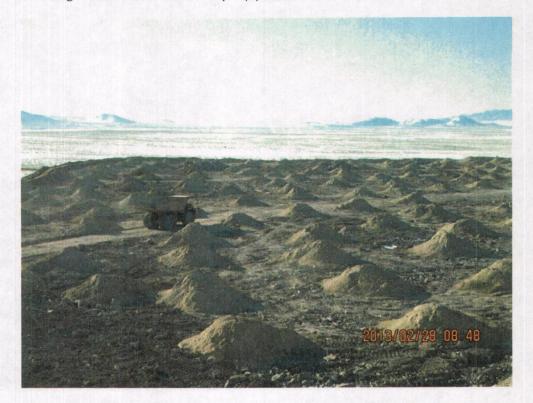
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FEB 25 2015



Rounding the Monitor Phase 1 dump top perimeter.



Topsoil distribution on the dump top.

APPROVED FEB 25 2015 DIV. OIL GAS & MINING



Spreading topsoil on the dump top.



Ripping and sheepsfoot "dimpling" of the dump top.



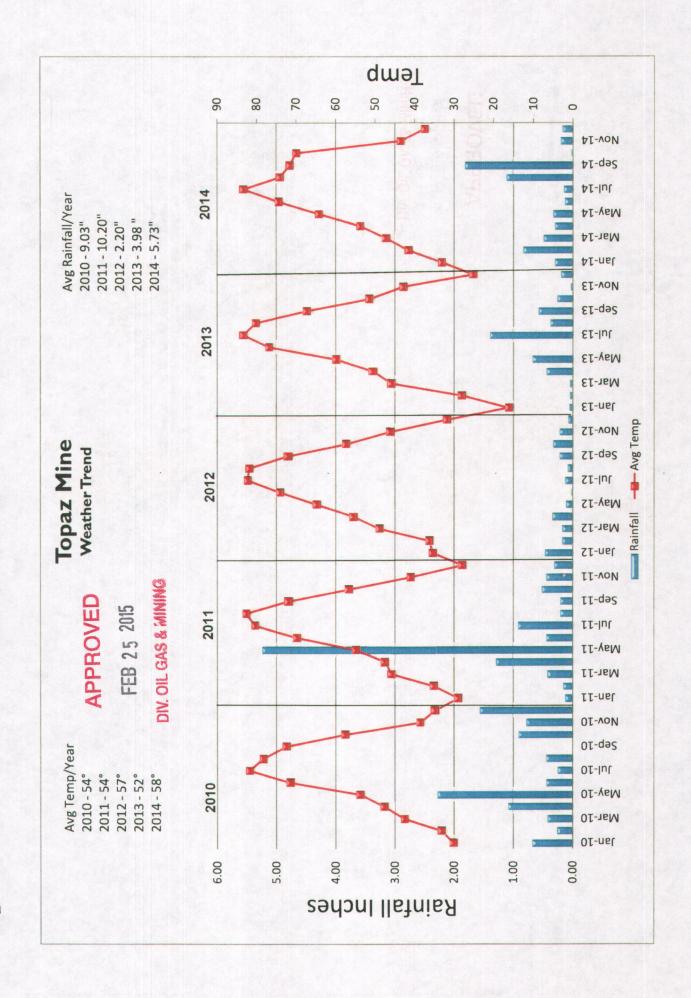
Broadcast seeding the dump top

FEB 25 2015



Result of rounding, topsoil, seeding, ripping, sheepfoot of dump top.





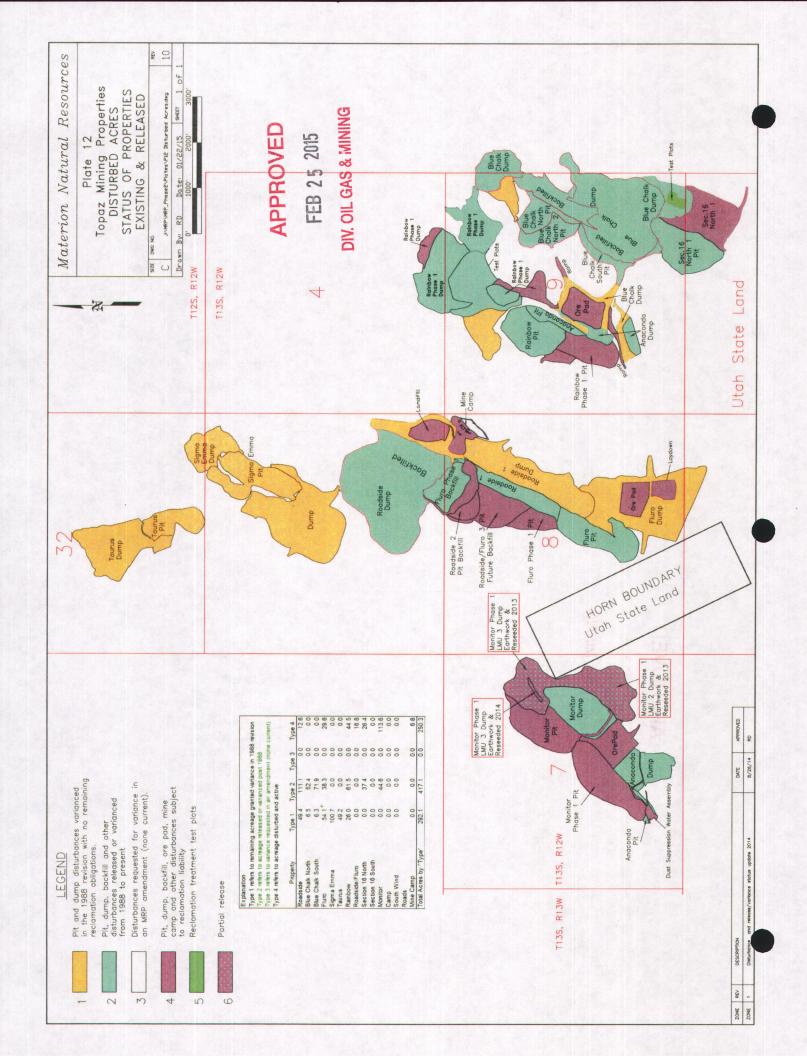


Table 9.1-1	Current (end 2013)	Outstanding Liability Areas	
Disturbance Area Designation	Disturbed Area (acres)	Disposition	Anticipated Timing
Monitor Pit Backfill Surface	23.8	Rip, topsoil, revegetate	Partial Backfill Post Phase 2
Monitor Ore Pad	14.2	Rip, topsoil, revegetate	End of Monitor pit life
Dust Suppression water assembly (southwest of Monitor)	1.8	Rip, revegetate	Post Phase 2
Roadside 2 Pit Backfill Surface	4.9	Rip, topsoil, revegetate	Partial Backfill Post Phase 2
Roadside/Fluro 3 Pit Backfill Surface	16.8	Rip, topsoil, revegetate	Post Phase 2
Landfill	7.7	Cover, topsoil, revegetate	End of mine life
Mine Camp	6.8	Rip/scarify, revegetate	End of mine life
Laydown area &ore pad on Fluro dump	14.1	Rip/scarify, topsoil, revegetate	End of mine life
Rainbow Pit borrow, ore pad, ramps	17.9	Regrade, rip, topsoil, revegetate	Post Phase 2
Fluro Phase 1 Dump Outslope & Pit Backfill Surface	15.5	Rip, topsoil, revegetate	Post Phase 2
Rainbow Phase 1 Dump	12.0	Rip, revegetate	Post Phase 2
Rainbow Phase 1 Pit Backfill	14.6	Rip, topsoil, revegetate	Post Phase 2
Monitor Phase 1 Pit Backfill	28.2	Rip, topsoil, revegetate	Post Phase 2
Monitor Phase 1 Dump	44.4	Rip, revegetate	Post Phase 2
Monitor Phase 1 Roads	1.2	Rip, topsoil, revegetate	Post Phase 2
Section 16 North 1 Dump	26.4	Rip/scarify, topsoil, revegetate	Post Phase 2
Total Current Disturbed Area	250.3		

FEB 25 2015

14477 134.96 100 110	Description	Equipment	Hourly Operating Costs	Equipmen	Hourly Costs	Equipment	Totall Equip	Operator's Hourly	Number	Total	Total Eq. & Lab.			Production		TOTAL
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FEB 25 2015

DIV. OIL GAS & MINING

Printed 12/26/2013

File Name EARTH materion existing & phase 1 mine November 2013 FINAL xisx and Worksheet Sheepsfoot

Materion Resources M/023/003

Existing mine Phase 1

Revised 10/14/13

Description	Equipment Cost	Hourly Operating Costs *	Equipment Overhead	Total Equip Cost	Operator's Hourly Wage Rate*	Number of Workers or Eq.	Total Operator Cost	Total Eq. & Lab. Costs	Units	Quantity ^ Units	Units	Production Rate ^{AA}	Units	Equip. + Labor Time/Dis.	Units	TOTAL
Binning with D9 dozer and rinner chanks	dozer	dozer														
Monitor Ore pad	114.77	134.95	1.10	274.70	71.75	-	71.75	346.45	\$/hr	14.20	ac	0.75	ac/hr			6,559.36
Dust Suppression water assembly	114.77	134.95	1.10	274.70	71.75	1	71.75	346.45	\$/hr	1.80	ac	0.75	ac/hr			831.47
Mine Camp	114.77	134.95	1.10	274.70	71.75	1	71.75	346.45	\$/hr	6.80	ac	0.75	ac/hr			3,141.10
Lavdown & Ore pad on Fluro dump	114.77	134.95	1.10	274.70	71.75	-	71.75	346.45	\$/hr	14.10	ac	0.75	ac/hr			6,513.17
Rainbow borrow, ore pad, ramps	114.77	134.95	1.10	274.70	71.75	-	71.75	346.45	\$/hr	17.90	ac	0.75	ac/hr			8,268.49
Rainbow Phase 1 dumps with earthwork incomplete		134.95	1.10	274.70	71.75	-	71.75	346.45	\$/hr	6.90	ac	0.75	ac/hr			3,187.29
Section 16 North 1 dump		134.95	1.10	274.70	71.75	-	71.75	346.45	\$/hr	21.10	ac	0.75	ac/hr			9,746.65
Monitor Phase 11 MI12 Dumps	114.77	134.95	1.10	274.70	71.75	-	71.75		\$/hr	15.50	ac	0.75	ac/hr			7,159.86
Monitor Phase 1 I MU3 Dumps/ Mon3 pit backfill	114.77	134.95	1.10	274.70	71.75	-	71.75		-	9.60	ac	0.75	ac/hr			4,434.50
Monitor Phase 1 Roads	114.77	134.95	1.10	274.70	71.75	1	71.75	346.45	\$/hr	1.20	ac	0.75	ac/hr			554.31
Subtotal																
SOURCES AND NOTES:																
* Equipment hourly cost = Means 01 54 33.20 4360 (dozer, 410 H.P.), based on	(dozer, 410 H.	P.), based or		ntal rate/1	monthly rental rate/176 hr month.											
* Labor hourly cost = Means page 677, equip, operators, medium equip.	tors, medium e	idnip.														
Based on monthly rental rate/176 hr month & hourly operating cost from R.S. Means 2011, pg 477	hourly operatir	ng cost from	R.S.Means 2	1011, pg 4	77.											
Hourly cost for labor includes wages, worker's comp, and contractor O & P,	comp, and con	tractor O & F		Means (2	011), pg ix ar	as per RS Means (2011), pg ix and inside back cover	k cover									
A quantity from Materion mine planning data																
A Production rate from productivity sheets																
															1	
		THE PERSON NAMED IN COLUMN	THE REAL PROPERTY.	CHARLE TOWN	The state of the s	STATE OF STREET STATE OF STREET	TO STATE OF THE PARTY OF THE PA			109.10	The second				STATE OF STREET	50.396.20

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State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER

Executive Director

Division of Oil, Gas and Mining JOHN R. BAZA



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Lieutenant Governor Division Director	Minarale Inspection D	anaut.	Reviewed 1	1917
	Minerals Inspection R		Reviewed 1	
	Report Date 07/02/201	4		
line Name: Topaz	Permit Number:	NI/023/0003	Mine Status:	Active
Operator Name: Materion Natural Resources	Inspection Date:	06 26 2014	Permit Fees:	Paid
nspector(s). Wayne Western	Inspection Time	9:00 - 10:15 am	Bond Amount:	\$1,398,000
ttendee(s): Rob Dalton	Weather	overcast mild	Bond Escalation:	12/01/2016
rspection Purpose. Routine inspection			Prior Inspection:	05/16/2013
onclusions and Recommendations Ithough this was a routine inspection, the Operer The reason for that request was that Operation and to include a bond release application and to include	itor wants to apply for Phase One bo	ond release on the si	te. The Operator was i	ise I dump top
Elemen	ts of Inspection	Eva	luated & Commented	Enforcement
l Permits, Revisions, Transfer, Bonds				
Bond and permit fees are current				
Public Safety (shafts, adits, trash, signs, hi				
A public road does go through part of the that are part of the active mining operation	mine site. The Operator posted war	ning signs and no tre	espassing signs. There	are highwalls
3. Protection of Drainages/Erosion Control				
The area receives under 5 inches of rain po	er year There were no signs of eros	ion on site.		
Deleterious Material				
All trash was stored in designated areas				
Roads (maintenance, surfacing, dust control				
Roads were maintained and water trucks w	vere actively spray to control dust			
Reclamation				
The Monitor Phase I dump top area had be	e backfilled and graded last year Ti	he site met the minir	num standards for recl	amation.
Backfilling Grading (trenches, pits, roads,	highwalls, shafts)			
Soils				
Revegetation				
There was some vegetation on the Monitor	Phase I dump top area			
Other Other				
spector's Signature:				
nragemis LOGM GROUPS AUSERALS WP MOSS				

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Page 2 of 2





Reclaimed area looking west. Notice some plants has started to grow



Reclaimed area looking west

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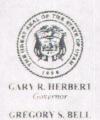


Reclaimed area east side



Reclaimed area east side





State of Utah

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Division Director



Page 1 of 2

THE MET OF THE PARTY OF THE PAR				- 1-
Min	nerals Inspection F	Report	Reviewed V	MIC
Rep	oort Date 07/02/201	4		
Mine Name: Topaz	Permit Number:	M/023 0003	Mine Status:	Active
Operator Name: Materion Natural Resources	Inspection Date:	06/26/2014	Permit Fees:	Paid
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Attendee(s). Rob Dalton	Weather	overcast mild	Bond Escalation.	12/01/2016
nspection Purpose: Routine inspection			Prior Inspection:	05/16/2013
Conclusions and Recommendations Although this was a routine inspection, the Operator did area. The reason for that request was that Operator wan submit a bond release application and to include a map	ts to apply for Phase One be	ond release on the si	te. The Operator was	ise I dump top
Elements of In-	spection	Eva	luated & Commented	Enforcement
1 Domite Davidson Passets David				

1	Permits, Revisions, Transfer, Bonds		
	Bond and permit fees are current		
2.	Public Safety (shafts, adits, trash, signs, highwalls)		П
	A public road does go through part of the mine site. The Operator posted warning signs and no t that are part of the active mining operation.	respassing signs. The	re are highwalls
3.	Protection of Drainages/Erosion Control		
	The area receives under 5 inches of rain per year. There were no signs of erosion on site.		
4	Deleterious Material		
	All trash was stored in designated areas		
5	Roads (maintenance, surfacing, dust control, safety)		
	Roads were maintained and water trucks were actively spray to control dust		
6	Reclamation		
	The Monitor Phase I dump top area had be backfilled and graded last year. The site met the min	mum standards for re	clamation.
7	Backfilling Grading (trenches, pits, roads, highwalls, shafts)		
8	Soils		
9	Revegetation		
	There was some vegetation on the Monitor Phase 1 dump top area		
10	Other		
nsp	pector's Signature:		
	Other		

the incogmist OGM, GROP PS/MINERALS WP M023-fluib M02300/3-Topiz-brush inspections/Inspt0262014 pdf

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Reclaimed area looking west. Notice some plants has started to grow



Reclaimed area looking west



Reclaimed area east side



Reclaimed area east side



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